



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

January 7, 2013

Mr. Gary D. Goeke
Chief, Environmental Assessment Section
Leasing and Environment (MS 5410)
Bureau of Ocean Energy Management (BOEM)
1201 Elmwood Park Boulevard
New Orleans, LA 70133-2394

Subject: EPA NEPA Review Comments on BOEM's DSEIS for "Gulf of Mexico Outer Continental Shelf (OCS) Oil and Gas Lease Sales: 2013-2014 Western Planning Area Lease Sales 233: Central Planning Area Lease Sales 231"; CEQ #20120358

Dear Mr. Goeke:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Bureau of Ocean Energy Management (BOEM) Draft Supplemental Environmental Impact Statement (DSEIS) in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. It is our understanding that BOEM proposes lease sales in the Gulf of Mexico (GOM) Outer Continental Shelf (OCS) for lease blocks in both the Central Planning Area (CPA) and the Western Planning Area (WPA). Since the proposed action impacts areas in Region 4 and Region 6 both EPA regions participated in this review. We appreciate the BOEM providing the EPA additional time to review this EIS.

The EPA has participated in several recent NEPA reviews for BOEM actions, including reviews of the Draft Programmatic Environmental Impact Statement (PEIS) for the proposed 2012-2017 Outer Continental Shelf Oil and Gas Leasing Program and other DSEISs for lease sales in the CPA and WPA of the GOM OCS Region.

Based on our analysis of the above referenced proposed action, EPA rates this DEIS as "EC-2" i.e., EPA has "Environmental Concerns and Request Additional Information" in the Final EIS (FEIS). The EPA's rating system criteria can be found online at: <http://www.epa.gov/oecaerth/nepa/comments/ratings.html>. Our primary concerns associated with the proposed actions are related to potential impacts to air, coastal ecosystems, wetlands, mitigation, and impacts on environmental justice populations. Detailed comments are enclosed with this letter which more clearly identifies our concerns and comments. We request that a dedicated section of the FSEIS include specific responses to our comments.

EPA appreciates the opportunity to review the DSEIS. Should BOEM have questions regarding our comments, please feel free to contact Dan Holliman of my staff at 404/562-9531 or holliman.daniel@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Mueller', with a stylized flourish at the end.

Heinz J. Mueller
Chief, NEPA Program Office
Office of Policy and Management

**U.S. EPA DETAILED COMMENTS
ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
(DSEIS) FOR THE U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF OCEAN
ENERGY MANAGEMENT (BOEM) GULF OF MEXICO OUTER CONTINENTAL
SHELF (OCS) OIL AND GAS LEASE SALES: 2013-2014 WESTERN PLANNING AREA
LEASE SALES 233: CENTRAL PLANNING AREA LEASE SALES 231**

BACKGROUND:

The Draft Supplemental Environmental Impact Statement (DSEIS) was prepared by the U.S. Department of the Interior, Bureau of Ocean Energy Management (BOEM), Gulf of Mexico (GOM) Outer Continental Shelf (OCS) Region for lease areas in the Central and Western Planning Areas (CPA and WPA). A total of 2 lease sales are being proposed, one block in the CPA and one block in the WPA. EPA understands that “this Supplemental EIS focuses on updating the baseline conditions and potential environmental effects of oil and natural gas leasing, exploration, development, and production in the WPA and CPA since publication of the 2012-2017 WPA/CPA Multisale EIS. This Supplemental EIS analyzes the potential impacts of proposed WPA Lease Sale 233 and proposed CPA Lease Sale 231 on the marine, coastal, and human environments. This Supplemental EIS will also assist decisionmakers in making informed, future decisions regarding the approval of operations, as well as leasing. As described by BOEM, the need for the proposed actions (lease sales) is to further the orderly development of OCS resources.”¹

ALTERNATIVES PROPOSED:

Alternatives for Proposed WPA Lease Sales 233

Alternative A—The Proposed Action: This is BOEM’s preferred alternative. This alternative would offer for lease all blocks within the WPA lease sale area (**Figure 2-1**), with the following exception:

- (1) whole and partial blocks within the boundary of the Flower Garden Banks National Marine Sanctuary (i.e., the boundary as of the publication of this Supplemental EIS).

Alternative A of the 2012-2017 WPA/CPA Multisale EIS also included an exclusion of whole and partial blocks that lie within the 1.4-nmi buffer zone north of the maritime boundary between the United States and Mexico. The U.S. and Mexico have been pursuing an Agreement to govern the development of reservoirs of petroleum and natural gas straddling the U.S.-Mexico maritime and continental shelf boundary in the Gulf of Mexico. On February 20, 2012, the Agreement was signed by representatives of each Government, but it has not yet entered into force. Upon its entry into force, the blocks and acreage in this buffer zone that were not offered in past lease sales will become available for leasing. As the Agreement may enter into force prior to the tentative date scheduled to hold proposed

¹ p. 1-3

WPA Lease Sale 233, BOEM has considered this 1.4-nmi buffer area as being potentially available for lease under Alternative A.

Although the leasing of portions of the WPA and CPA (subareas or blocks) can be deferred during a Five-Year Program, DOI is conservative throughout the NEPA process and includes the total area within the Gulf of Mexico planning areas for environmental evaluation. The proposed WPA lease sale area encompasses about 28.58 million ac. As of October 2012, approximately 20.8 million ac of the proposed WPA lease sale area are currently unleased. The estimated amount of resources projected to be developed as a result of the proposed WPA lease sale is 0.116-0.200 BBO and 0.538-0.938 Tcf of gas (**Table 3-1**).

Alternative B—The Proposed Action Excluding the Unleased Blocks Near Biologically Sensitive Topographic Features: This alternative would offer for lease all unleased blocks in the WPA, as described for the proposed action (Alternative A), with the exception of any unleased blocks subject to the Topographic Features Stipulation.

Alternative C—No Action: This alternative is the cancellation of proposed WPA Lease Sale 233. The opportunity for development of the estimated 0.116-0.200 BBO and 0.538-0.938 Tcf of gas that could have resulted from proposed WPA Lease Sale 233 would be precluded or postponed. Any potential environmental impacts resulting from proposed WPA Lease Sale 233 would not occur or would be postponed. This is also analyzed in the EIS for the Five-Year Program on a nationwide programmatic level.²

Alternatives for Proposed CPA Lease Sales 231

Alternative A—The Proposed Action: This is BOEM's preferred alternative. This alternative would offer for lease all blocks within the CPA lease sale area (**Figure 2-1**), with the following exceptions:

- (1) whole and portions of blocks deferred by the Gulf of Mexico Energy Security Act of 2006; and
- (2) blocks that are beyond the United States Exclusive Economic Zone in the area known as the northern portion of the Eastern Gap.

Alternative A of the 2012-2017 WPA/CPA Multisale EIS also included an exclusion of whole and partial blocks that lie within the 1.4-nmi buffer zone north of the maritime boundary between the United States and Mexico. The U.S. and Mexico have been pursuing an agreement to govern the development of reservoirs of petroleum and natural gas straddling the U.S.-Mexico maritime and continental shelf boundary in the Gulf of Mexico. On February 20, 2012, the "Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico" (Agreement) was signed by representatives of each Government, but it has not yet entered into force. Upon its

² Alternatives Proposed for WPA cited directly from DSEIS p. 2-4

entry into force, the blocks and acreage in this buffer zone that were not offered in past lease sales will become available for lease. As the Agreement may enter into force prior to the tentative date scheduled to hold proposed CPA Lease Sale 231, BOEM has considered this 1.4-nmi buffer area as being potentially available for lease under Alternative A.

Although the leasing of portions of the CPA (subareas or blocks) can be deferred during a Five-Year Program, DOI is conservative throughout the NEPA process and includes the total area within the Gulf of Mexico planning areas for environmental evaluation.

The proposed CPA lease sale area encompasses about 63 million ac of the total CPA area of 66.45 million ac. As of October 2012, approximately 42.9 million ac of the proposed CPA lease sale area are currently unleased. The estimated amount of resources projected to be developed as a result of proposed CPA Lease Sale 233 is 0.460-0.894 BBO and 1.939-3.903 Tcf of gas (**Table 3-1**).

Alternative B—The Proposed Action Excluding the Blocks Near Biologically Sensitive Topographic Features: This alternative would offer for lease all blocks in the lease sale area, as described for the proposed action (Alternative A), with the exception of any unleased blocks subject to the Topographic Features Stipulation.

Alternative C—No Action: This alternative is the cancellation of proposed CPA Lease Sale 231. The opportunity for development of the estimated 0.460-0.894 BBO and 1.939-3.903 Tcf of gas that could have resulted from proposed CPA Lease Sale 231 would be precluded or postponed. Any potential environmental impacts resulting from proposed CPA Lease Sale 233 would not occur or would be postponed. This is also analyzed in the EIS for the Five-Year Program on a nationwide programmatic level.³

EPA COMMENTS:

ALTERNATIVES (page 2-4)

In general, Alternative B (The Proposed Action Excluding the Unleased Blocks Near Biologically Sensitive Topographic Features) appears to be the more environmentally sensitive approach with regard to the resources targeted by this review. In addition, the potential mitigating measures that have been incorporated into the lease stipulations for topographic features and protected species are recommended. Lastly, no information was provided regarding the estimated resources that could be developed under Alternative B (BBO and Tcf of gas). This is critical information when comparing the Alternatives. EPA recommends providing estimates of the potential resources that could be developed under Alternative B in the FSEIS.

³ Alternatives Proposed for WPA cited directly from DSEIS p. 2-4& 2-5

AIR

The EPA is responsible for ensuring compliance with the National Ambient Air Quality Standards (NAAQS) in the Gulf States of Texas, Louisiana, Mississippi, Alabama and Florida. In addition, EPA Region 4 is responsible for implementing and enforcing Clean Air Act (CAA) requirements for OCS sources offshore the state seaward boundaries of all areas of the Gulf of Mexico (GOM) east of 87°30" (*see* CAA section 328). Pursuant to the CAA and applicable federal regulations (*see* 40 CFR 55), OCS activities, such as exploratory drilling operations and production platforms are subject to the EPA requirements to obtain air quality preconstruction and operating permits. As such, the EPA will be using the FSEIS prepared by BOEM for WPA Lease Sale 233 and CPA Lease Sale 231 as a decision making document for our required permitting actions.

EPA concurs with BOEMs approach of providing supplemental contemporaneous air quality modeling for the proposed lease sale areas. Our specific comments on the modeling assessment are below. We have also included general comments on the air quality impacts and related analyses presented in the DSEIS. Our most significant concerns continue to be the potential impacts and increment consumption of fine particulates (PM_{2.5}) at the Breton Wildlife Class I area, the impact on the short term National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO₂), and the quantification of impacts of ozone and ozone precursors, especially on onshore non-attainment areas.

I. General Comments on Air Quality Impacts

Ozone Impacts

The DSEIS notes studies conducted in 1995 (Gulf of Mexico Air Quality Study), 2004 (2000 Gulf-wide emissions inventory), and 2008 (Assessment of onshore air quality impacts for the eastern Gulf Coast) as the basis of not performing ozone modeling for this analysis. The 2004 and 2008 studies were unpublished (References, Appendix A). The DSEIS concludes that contributions to ozone exceedances shown by these studies are "minor" and "slight" (Section 4.2.1.1).

EPA recommends providing summary data of projected onshore ozone impacts from the noted studies to explain the basis of BOEM's determination that OCS activities "contribute only slightly to onshore ozone exceedances in the Houston/Brazoria/Galveston area of Texas, and the States of Louisiana, Mississippi, Alabama, and Florida."⁴ If these studies contain projections of impacts to monitored ozone concentrations or ozone design values, please include in the FSEIS. In addition, EPA recommends that the DSEIS include information on how previous studies, dating back 18 years, and relied upon for the ozone impact conclusions continue to provide a relevant assessment of the projected impacts from the lease sales. The DSEIS states:

⁴ DSEIS – Appendix A – page A-7

“Because the OCS Program includes both new drilling and production as well as production ending on older wells and platform removal, the level of impacts determined in earlier studies are assumed to adequately represent current conditions as well”⁵

The conclusion drawn from the reasoning is neither intuitive nor supported in the DSEIS, considering that the lease sale will open additional lease blocks and drilling in different areas. To support this conclusion, EPA recommends that the FSEIS provide documentation to justify that the frequency and duration of drilling and production operations are equivalent to the future projections for the lease sales, and that emissions will impact the same onshore areas as the previous studies. If this documentation shows that a significant increase or differences in activity will occur due to the lease sale, EPA recommends that emission modeling should be updated.

Air Quality Impact Conclusions

The DSEIS indicates that BOEM is confident that offshore oil and gas activities associated with the CPA/WPA proposed action will not contribute to exceedances of the NAAQS at the shoreline and project impacts will be “well within the NAAQS.”⁶ Appendix A, however, indicates that slight contributions to ozone exceedances may occur in onshore areas, but no additional analysis or supporting data was provided. In addition, the OCD modeled impacts for 1-hr NO₂ represent 29% and 44% of the Class I area and Class II NAAQS respectively, which would be considered significant by EPA and warrant further analysis. Finally, given that worst-case emissions (considering the pollutant, averaging periods, and emission factors), at the worst-case location were not modeled, the maximum onshore and Class I impacts may not have been provided. While worst case analyses are not required for NEPA analyses, given the above limitations, EPA recommends reporting the results of the modeling in relation to the appropriate reference indicators (i.e NAAQS and SILs), and limiting conclusions, such as “well within” and “will not” that would require additional analysis to substantiate.

Mitigation-2.2.2 (pp. 2-6, 2-7)

The DSEIS does not address proposed or existing mitigation measures for air quality. The DSEIS indicates that air quality measures are included in the “120 standard mitigations.”⁷ However, as the air quality mitigation measures were not include in the original EIS or DSEIS, it is not possible to evaluate or provide meaningful comment on the effectiveness of the potential air quality mitigation measures that may be applied at the project level phase.

EPA provided a similar comment on the Western and Central Planning Areas Multisale DEIS (USEPA, February 13, 2012). BOEM’s response to comments document indicated that air mitigation includes documentation of fuel use or run time, verification of emissions, monitoring of SO_x and NO_x emissions, and restrictions on flaring (*see response USEPA-2*). Mitigation

⁵ DSEIS page 4-84

⁶ DSEIS – page xi

⁷ DSEIS page 2-7

would typically include measures for avoiding, minimizing, reducing, or compensating, such as restrictions on flaring. Further explanation would be helpful to discern how the other referenced reporting and recordkeeping actions would provide mitigation for potential impacts.

While the BOEM has indicated mitigation measures are considered for venting and flaring, significant OCS project emissions come from combustion of diesel fuel in marine diesel engines. Mitigation could include such measures as use of low sulfur fuels, inherently lower polluting engine designs (i.e. use of tier certified non-road and marine engines vs. export engines), electrification of cranes and support equipment, fuel efficiency measures, and add on controls.

Finally, BOEM indicates that mitigations are typically only required for sources that exceed the exemption threshold. However, pursuant to the Council on Environmental Quality (CEQ) guidelines, all reasonable mitigation measures that could alleviate the environmental effects of a proposed action should be identified, even if the impacts would not be considered significant (Forty Questions 19 (a)). EPA recommends that the FSEIS include potential mitigation measures specifically for air pollution impacts, so that BOEM may receive meaningful feedback and input on the potential effectiveness and feasibility of such measures.

Consideration of Climate Change and Greenhouse Gas (GHG) Emissions⁸

EPA recommends that the FSEIS include a discussion, per CEQ draft guidelines, on “the GHG emissions effects of the proposed and alternative actions”, and on “the relationship of climate change effects to the proposed action or alternative, including the relationship to proposal design, environmental impacts, mitigation and adaptation measures.” Per the draft guidance, if a proposed action would be reasonably anticipated to cause direct emissions of 25,000 metric tons or more of CO₂-equivalent GHG emissions on an annual basis, agencies should consider this an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public (CEQ; February 18, 2010). The high-case GHG emissions for single sales in the CPA and WPA are estimated in the DSEIS to be approximately 1,800,000 and 486,000 tons/year respectively (Tables A-3, A-4, Appendix A).

II. Appendix A: Air quality Offshore Modeling Analysis

EPA concurs with the BOEM’s approach of conducting contemporaneous air quality impact modeling for the DSEIS based on proposed activities in the lease sale areas, in addition to Gulf wide studies. The following are general comments associated with the air quality modeling supporting this DSEIS. Specific comments of the more technical aspects of the modeling follow. Our EPA regional modeler can further address any questions regarding specific modeling issues in more detail.

⁸ CEQ - Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions – February 18, 2010

Representative vs. Worst-case Scenario

DSEIS does not use a “worst case” analysis, as inferred in Appendix A. While a worst case analysis is not required for NEPA, the DSEIS indicates that BOEM’s stated objective is to determine “if the impacts from the proposed actions would significantly affect the environment, particularly public health and public welfare.”⁹ Given the range of lease block activities (e.g., Tables A-1 through A-4) and the locations of the sale lease blocks, the impact modeling cannot include all possible location/emission scenarios. Therefore, to ensure meeting the stated object that no scenario significantly affects the environment, EPA recommends the use of the most controlling scenario (i.e., scenario producing the worst-case impacts) in the ambient impact assessment supporting this DSEIS. The use of a representative scenario at a representative location would not adequately ensure no significant environmental impact. For example, the worst-case emissions would be pollutant and averaging period dependent (i.e., the Table A-5 annual average hourly values for the long-term standards and maximum hourly emission rates associated with each shorter-term standard). This level of analysis was not performed, therefore, EPA is concerned that the conclusions are not supported to the level inferred. EPA recommends that the conclusions reflect the limitations of the analysis, as discussed in the “conclusions” section above.

Emissions Inventory for Modeling Analysis

The tables in Appendix A present the emission data used for the modeling analysis. The DSEIS notes that these emissions were generated by summing the emissions from all OCS activities listed on page 5 of Appendix A. Although, the calculations relied on the *Year 2008 Gulfwide Emission Inventory Study*, it is unclear how these emissions were estimated, for example, from hourly usage and emission factors or from emissions tests. A description, or a footnote, detailing the emission calculations would help clarify this analysis and is recommended for the FSEIS.

Also, on this page, the DSEIS reports that a drillship generates 773 tons of NO_x per well. The EPA Region 4 has received several air permit applications with modeled emission calculations from drillships. The estimated emissions depend on the drillship type and the duration of the drilling project. Some of the emissions submitted to the EPA were close to the number referenced above; however, several were significantly higher than the estimated 773 tons per well, including estimates of NO_x emissions for a single well was high as 2,055.37 tons, (Eni US Operating Company). Based on the applications that EPA has received, it appears that the highest estimated emissions may be higher than those presented in the DSEIS.

Exemption Thresholds

The background of the Air Quality Modeling Analysis describes BOEM’s use of a two-level hierarchy of evaluation criteria to evaluate potential impacts of offshore emission to onshore area, specifically the exemption level and significance level. The DSEIS on page A-3 states:

⁹ DSEIS – Appendix A – page A-3

The initial evaluation compares the worst-case emissions to the BOEM exemption criteria. This corresponds to the USEPA screening step where the proposed activity emissions are checked against screening thresholds or “exemption levels.” If the proposed activity emissions are below the exemption levels, then the proposed activity is exempt for further air quality review.

The reference to the USEPA screening thresholds or exemptions levels does not appear to be an accurate characterization of EPA’s air quality review, and EPA recommends that this analogy be removed. Neither EPA’s OCS program, at 40 CFR 55, nor the onshore requirements have “exemption levels” analogous to the BOEM’s rule whereby no further review is required. While not specifically stated, the BOEM appears to be drawing an analogy to the PSD significance impact levels (SILs). However, these “screening thresholds” are used to determine whether additional cumulative modeling is required. Full NAAQS and control technology evaluations, among other requirements, are still required for sources below these thresholds. In addition, sources not subject to PSD requirements, i.e. below the *major source thresholds*, are subject to air quality review and requirements, including Title V permitting, New Source Performance Standards (ie. emission limit and control technologies), and NESHAPs. In addition, minor source New Source Review, as well as applicable state and local State Implementation Plan requirements are applicable onshore, within state tidelands and for OCS sources under EPA’s jurisdiction and within 25 miles of the state seaward boundary. For example, the OCS sources recently permitted by EPA offshore Alaska are below PSD major source thresholds. However, they received air quality review and analysis under the Title V program and state and local requirements, including an air quality modeling assessment for compliance with the NAAQS and permitting that incorporated emission limits, applicable control technologies, and public notice and comment.

In addition, per our comments on the Multi-sale DSEIS, EPA continues to have concerns regarding the appropriateness of the BOEM emission exemption levels that are used as the first level of assessment. Since these are relied upon to ensure protection of onshore air quality and sources below this level are not typically subject to mitigation or monitoring requirements, EPA recommends that their appropriateness be explained.

1-hr NO₂ National Ambient Air Quality Standard (NAAQS)

The DSEIS implies that the 1 hr NO₂ NAAQS is specifically an EPA standard, and infers that it may not be applicable if other agencies, such as BOEM, are the regulatory authority that must ensure compliance with the NAAQS. For example, page A-7 indicates that BOEM does not regulate 1-hr NO₂ NAAQS. Specifically, it is stated in the DSEIS that:

“BOEM does not regulate 1-hour NO₂. The 1-hour NO₂ standard is an USEPA standard.”

While the CAA charges EPA with the adoption of the NAAQS, they are the *National* standards, which apply at the onshore receptor locations BOEM has chosen for the OCS modeling analysis. Hence, EPA concurs with BOEM that is necessary for the DSEIS to address the 1-hr NO₂

standards, regardless of whether the Department of Interior (DOI) air quality regulations have been updated to include all the NAAQS and any corresponding Significant Impact Levels and/or Maximum Allowable Increases for Class I and Class II areas (increments). As discussed in the DSEIS, DOI is charged with implementation of the CAA and promulgation of the regulations for compliance with the NAAQS under the Outer Continental Shelf Lands Act, which would include the 1-hr NO₂ standard. EPA suggests that the above referenced language be revised to more accurately characterize the 1-hour NO₂ NAAQS.

Modeled Impacts Evaluation Criteria

BOEM assessed the significance of potential lease activities impacts in the DSEIS by comparing the results of the BOEM OCD modeled onshore concentrations to BOEM's significant levels (BSL), and BOEM's maximum allowable increases (BMAI). [Note: The BSL are not provided and only the BMAI used in Tables A-6 through A-8.]. The modeled receptors are onshore, where federal NAAQS and state air quality standards and PSD increments apply. Hence, EPA recommends that the comparison tables in Appendix A include the applicable federal NAAQS and PSD increments, such that readers can evaluate the project emissions in light of these applicable standards/criteria (i.e. this is the information that would be the most relevant and helpful).

EPA is also concerned that the scope of the NEPA analyses has been limited by the BSL and BMAI that are incorporated into the DOI air quality regulations for the purposes of plan reviews. As mentioned in the DSEIS, these regulations have not been updated to incorporate all applicable NAAQS. A review of the Class I and Class II area BMAI provided in Tables A-6, A-7, and A-8 indicates:

- With the exception of Class II annual NO₂, all BMAI are much larger than EPA's significant impact levels (SIL).
- There are no BMAI for PM_{2.5}.
- The SO₂ BMAI are equal to the PSD increments, and the PM₁₀ BMAI are larger than the PSD increments.
- There are no NO₂ and SO₂ 1-hour BMAI.

Based on these characteristics, the EPA SIL appears to be more appropriate target values for significant impact assessment, since these are the values that must be met by state, local and federal agencies at the location of the receptors. Since NEPA analyses are not constrained by DOI air quality regulations, and federal, State and local agencies will look to the EIS as a planning tool for ensuring compliance with the NAAQS and PSD increments, which are applicable onshore, EPA recommends that these values be included in the comparison table and addressed as relevant.

OCD Model Impact Assessment

The following comments are associated with the described OCD model impact assessment:

- The OCD model has a 50 km applicability limitation (40 CFR 51, Appendix W). The appropriateness and conservative nature of this model for distances in excess of 50 km has not been demonstrated. EPA suggests that BOEM consider using CALPUFF, or another model designed for distances beyond 50 km.
- The specific meteorological data used in the modeling assessment were not provided or described. The large extent of the WPA and CPA would require the use of meteorological data from more than one location.
- The NAAQS, as defined, extend to each state's seaward boundary (i.e., generally 3 or 9 miles seaward of the shoreline). Therefore, the more appropriate nearest modeled receptor would be located along each state's seaward boundary, rather than onshore. The proposed lease sale areas include areas immediately adjacent to the state seaward boundaries. Projected impact assessments have not been provided for these areas.
- The specific modeled receptors and location of the modeled lease block activities should be provided in the FSEIS so that readers may understand the extent of the evaluation. EPA recommends including a figure of each planning area identifying the sale lease blocks and the locations of modeled activity emissions, receptors, and meteorological data stations.
- The OCD modeled emission sources and rates were not clearly described or provided. Yearly emissions from all the WPA and CPA were indicated to be summed together and modeled. The single sale project emissions were also indicated to be modeled. A clear description of the modeled emissions is needed as well as the specific OCD input emission parameters in order to determine the accuracy and limitations of the analysis, and hence, the extent to which results can be relied upon for necessary decisions and planning.
- The modeled scenarios provided in Table A-5 are the total emissions provided in the single sale from Tables A-3 and A-4. The values are annual average hourly emission rates, which are not necessarily appropriate for the short-term (i.e., 24-hour, hourly, etc) ambient NAAQS and BMAI.
- The reason the referenced ozone modeling studies are applicable to the current and anticipated total offshore oil and gas activities from both planning should be provided.

The following comments are associated with the provided OCD modeling results and conclusions (i.e., Tables A-6 through A-8):

Central Planning Area – Class I Area (Table A-6)

- The EPA significant impact levels should be included in the comparison table. This is especially true because the receptors are located onshore where States and Federal agencies must comply with these increments and consider the impact of OCS sources in their permitting and planning.
- The modeled annual NO₂ and 24-hour PM_{2.5} concentrations are larger than EPA's SIL. EPA would consider these impacts to be significant for first level modeling and that cumulative PSD increment and NAAQS compliance modeling would be appropriate.

- The 1-hour NO₂ concentration is about 29% of the NAAQS. This appears significant considering no other nearby offshore and onshore emission sources were modeled. Cumulative PSD increment and NAAQS compliance modeling would be appropriate in order for the BOEM to make the claim that the projects are expected to have “minimal impacts onshore, and are expected to be well within the NAAQS.”
- The footnote to Table A-6 indicates “No background concentration available for Breton National Wilderness area.” EPA believes the air quality section of the Fish and Wildlife Service, which maintains the monitors on at Breton, has this data. Please contact EPA Region 4 or 6 if you need further assistance in obtaining the background data.

Central Planning Area – Class II Area (Table A-7)

- The EPA significant impact levels should be included in the comparison table, as discussed above.
- Because the modeled concentrations provided are only associated with a single sale and not all other offshore and onshore emission sources, the modeled values much smaller than the NAAQS do not assure no modeled NAAQS violations.
- The 1-hour NO₂ modeled value is about 44% of the NAAQS. This appears to be significant because no other nearby offshore and onshore emission sources were modeled. The ambient monitored concentration added to the modeled value was from a Louisiana monitor that may not be appropriate for all multiple state receptors. Therefore, the conclusion that sum of the monitored and modeled concentration does not exceed the NAAQS in the entire CPA Class II area has not been demonstrated.

Western Planning Area – Class I Area

- The statement (page A-7) that the 1-hour NO₂ impact assessment shows no NAAQS exceedances for Breton National Wilderness Area is inconsistent with the statement that no PSD Class I area impact assessment was performed for the WPA.

Western Planning Area – Class II Area (Table A-8)

- The EPA significant impact levels should be included in the comparison table.
- Because the modeled concentrations provided are only associated with a single sale and not all other offshore and onshore emission sources, the modeled values much smaller than the NAAQS do not assure no modeled NAAQS violations. The 1-hour NO₂ modeled value is about 14% of the NAAQS. This appears to be significant because no other nearby offshore and onshore emission sources were modeled. The ambient monitored concentration added to the modeled value was from a Louisiana monitor that may not be appropriate for the multistate receptors in this planning area. Therefore, the conclusion that sum of the monitored and modeled concentration does not exceed the NAAQS in the entire WPA Class II area has not been demonstrated.

WETLANDS AND COASTAL AREAS (page 4-18)

EPA comment:

This section references a previous EIS and states that “No new significant information was discovered that would alter the impact conclusion for wetlands...”

Recommendation:

EPA recommends providing a summary of what the impact conclusions were in the multisale EIS document referenced.

EPA comment:

General descriptions, using terms such as “negligible” and “minimal” indicate trends only and are insufficient for the reader to ascertain that there really are no significant impacts to wetlands. There is no explanation that establishes the potential context and intensity of potential impacts, and no specific quantifying data to help the reader understand why there will be only low, negligible, or minimal impacts to wetlands.

Recommendation:

Analysis of effects should use specific data and information, not subjective general forecasting. In general, there is no quantified data used to support any of the assertions of low, negligible, or minimal impacts.

EPA comment:

On page 4-18 it states “Wetland impacts from offshore spills would be minimized due to the distance of wells and production facilities to the coastal wetlands.” This sentence seems to conclude that the greater the distance from the coast the less likely oil spills would be to impact coastal wetlands; however, without specific data or examples, impacts to coastal wetlands cannot be determined. Page 4-18 also states “if an inland oil spill related to the WPA proposed action occurs, some impact to wetland habitat would be expected.”

Recommendation:

- Please include what distance that is and at what distance impacts be felt and/or minimized.
- The word “some” is not quantifiable. Impacts should be defined and quantified with ample data to prove what those impacts are projected to be.

EPA comment:

(Regional Director’s Note, page xii) - This section states that “the cumulative effects of human and natural activities in the coastal area have severely degraded the deltaic processes and have shifted the coastal area from conditions of net land building to one of net landloss [sic], particularly in Louisiana.” The next sentence seems to contradict the previous statement: “The incremental contribution of the...proposed action to the cumulative impacts on coastal wetlands is expected to be small.”

Recommendation:

- Because oil and gas development activity in the Gulf necessitates onshore infrastructure; pipeline construction and other related construction activity should be identified as one of these ‘human activities’ which has contributed to land loss.

EPA comment:

On page 4-19, the EIS states that ...”modern construction techniques...would result in zero to negligible impacts...because modern techniques avoid wetlands through selection emplacement in existing corridors, directional drilling to avoid additional trenching, and required restoration and revegetation techniques.” Wetlands staff regularly review permit applications for oil and gas development infrastructure necessary for offshore drilling, such as ring levees, pipelines, access roads, etc. under CWA Section 404 (dredge/fill wetlands), which frequently do have wetland impacts of varying size. Following the Section 404(b)(1) Guidelines which state that a project cannot be permitted unless it is the least environmentally damaging practicable alternative, the EPA and other resource agencies frequently make comments to recommend that the applicant examine alternatives which would minimize impacts to wetlands and other aquatic sites. For this EIS to state that simply because “modern construction techniques” are utilized by the oil and gas industry, there would be “zero to negligible impacts” in wetlands is not borne out by review of oil and gas development project applications on Public Notice under the Section 404 program.

On page 4-19, the DSEIS references “a condition of net landloss” [sic] and notes that “Wetland loss is also expected to continue in coastal Texas but at slower rates.” In addition, the DSEIS refers to “a detailed analysis of the cumulative impacts” which can be found in the earlier EIS.

Recommendation:

Citations to reference should be included as well as specific data on what the “slower rates” are being compared to. This section should also include a brief summary of the cumulative impacts analysis.

OIL SPILL ANALYSIS

Under section 3.2.1.8 – Risk Analysis by Resource - it is stated that “Coastal spills are estimated from historic counts; the estimate is not a rate tied to an anticipated production volume or probability.”¹⁰ BOEM then indicates that a detailed discussion for risk analysis by resource from offshore oil spills is provided in Chapter 3 of the multisale EIS.

Recommendation:

EPA recommends providing additional detail in the FSEIS regarding the methodology for estimating coastal spills and the estimated number of spills that would be expected with the proposed actions.

¹⁰ DSEIS page 3-16

ENVIRONMENTAL JUSTICE (starting page 4-71 and 4-162)

The DSEIS contains information indicating that the proposed project is not expected to have disproportionately high or adverse environmental or health effects on minority or low-income people. The infrastructure support system for oil- and gas-related industry is highly developed, widespread, and has operated for decades within a heterogeneous Gulf of Mexico population. However, EPA believes that the potential impacts to communities (low income, minority, and Tribal) that rely on subsistence hunting and fishing should be addressed in more detail. Lastly, EPA is unclear on why BOEM included information regarding the *Deepwater Horizon* Economic and Property Damages Settlement in the EJ sections for both Alternatives.

Recommendation:

Although the DSEIS mentions subsistence fishing uses by the community and ongoing monitoring and research activities related to the Deepwater Horizon event, it does not include information on outreach to the community to inform them of research and monitoring results and what those results mean to subsistence hunting and fishing conditions. The FSEIS should include a plan to supplement local subsistence hunting and fishing in the event of an accidental release from the leases described in the proposed project alternatives. Lastly, the FSEIS should include a discussion of how the *Deepwater Horizon* Economic and Property Damages Settlement is related to EJ communities impacted by the proposed action.

MITIGATION (page 2-5)

EPA recommends including additional information in the FSEIS regarding mitigation for the projected types of impacts on coastal resources. It would be appropriate to include a commitment to fully mitigate and/or compensate for all unavoidable losses of coastal resources, as well as for the physical, chemical, and biological functions and ecological services they provide. A statement of policy requiring that all leaseholders avoid, minimize, and fully mitigate unavoidable losses would be appropriate. Similarly, an explanation should be provided of the approach to be taken with regard to the timing of implementing mitigation measures relative to exploration and production activities.

NATIONAL HISTORIC PRESERVATION ACT (page 5-10)

It is beyond the scope of a general Tribal review in the context of NEPA to identify what specific treaties, laws, trust responsibilities and other duties may be applicable. Rather, this Tribal review looks at the NEPA document to determine whether it appears to contain adequate information to document that: 1) potentially affected Tribes, tribal resources and citizens were identified, and 2) appropriate contact was made with the Tribal officials of potentially affected Tribes (beyond the narrow context of working with THPOs or SHPOs on issues related to historic properties (NHPA), or 3) that the agency otherwise concluded that there were not tribes or tribal resources that would be affected and there was no need for such contact or consultation.

The DSEIS indicates that some tribes may be affected but fails to provide complete information to determine if all tribes potentially affected have been identified and contacted. Due to the

nature of the project, it appears that the proposed project could affect tribal resources (including natural resources), citizens or government services. EPA recommends that the following actions be taken by DOI: 1) identify all potentially affected tribes, resources, (including those used for subsistence) and tribal communities; 2) identify potentially applicable treaties, laws, policies, legal responsibilities, and duties; and 3) contact and, as appropriate, initiate consultation with Tribes concerning the potential effects of the proposed action.

Recommendation:

- The DSEIS states that no known historical properties will be affected by the proposed activities and that consultation is unnecessary (Chapter 5.8). However, the State of Louisiana recognizes several Tribal Governments whose members reside, and in many cases, derive their livelihood fishing the coastal waters of Louisiana. Within portions of the project area, there reside an estimated 36,000 Tribal Peoples, who historically used and continue to use the Louisiana coastal waters and estuaries as a means of livelihood and subsistence. While consultation with these tribes is not required due to their non-federal recognition status, coordination between BOEM, the State of Louisiana, and the Tribes regarding the potential effects of the proposed project alternatives on natural resources (especially those used for subsistence) and potential cultural sites associated with these Tribes (The United Houma Nation, Point Au Chien Tribe, Isle de Jean Charles Band, Grand Caillou/Dulac Band, and the Biloxi-Chitimacha Confederation/Bayou Lafourche Band) should be included in the FSEIS.
- Oil from past leaks and disasters as well as coastal erosion from hurricanes and shoreline development may have affected some Tribal fishing areas and inland wetlands. Plants used in traditional medicines and other traditional practices may also be affected as well as other cultural sites sacred to these Tribes. The FSEIS should describe these existing resources and the potential impacts to the resources from the proposed project alternatives.
- Coordination should be undertaken with Federally Recognized Tribes with historical ties to the Texas coastline.

CONSULTATION AND COORDINATION

Chapter 5 provides a description of how the proposed actions were noticed to the public, tribes, and other agencies. It also provides a summary of scoping comments, however there was no analysis of the number of comments received and if there was a focus or concentration area of the comments received.

Chapter 1 under the section titled “Measures to Enhance Transparency and Effectiveness in the Leasing and Tiering Process” BOEM provides a description of a process that will improve the public’s ability to comment and provide information in the prelease sale planning process. EPA commends BOEM’s efforts to enhance the public’s opportunities in the permitting and NEPA process, however this section should provide additional details on what steps BOEM will be taking to enhance the public’s commenting opportunities for the prelease sale planning process.

Recommendation:

- EPA recommends that the FSEIS include an analysis of comments received on the DSEIS that organizes the comments by resource area and provides the reader an understanding of how many comments were received for each resource area. In addition, this strategy is recommended for addressing comments in future NEPA documents.
- EPA recommends providing additional detail in the FSEIS regarding BOEM's efforts to improve the public's ability to comment and provide information in the prelease sale planning process.

Region 4 Contacts:

Dan Holliman – Region 4 NEPA Program Office – Holliman.Daniel@epa.gov

Kelly Fortin – Region 4 Air Division – Fortin.Kelly@epa.gov

Karrie-Jo Shell – Region 4 Water Protection Division (NPDES) – Shell.Karrie-Jo@epa.gov

Rosemary Hall – Region 4 Water Protection Division (Wetlands) – Hall.Rosemary@epa.gov

Region 6 Contacts:

John MacFarlane – Region 6 NEPA Program – MacFarlane.John@epa.gov

Barbara Keeler - Region 6 Water Quality Division (Marine and Coastal) -
Keeler.Barbara@epa.gov

Barbara Aldridge – Region 6 Water Quality Division (Marine and Coastal) –
Aldridge.Barbara@epa.gov

Sharon Osowski – Region 6 Office of Environmental Justice and Tribal Affairs –
Osowski.Sharon@epa.gov

Jeffrey Riley – Region 6 Multimedia Planning and Permitting Division (Air Planning) –
Riley.Jeffrey@epa.gov